#### **Knittel, Janette**

From: Kizz Prusia <kprusia@triangleassociates.com>
Sent: Wednesday, November 27, 2019 4:32 PM
Cc: Hale, Elly; Congdon, Julie; Annie Kilburg

Subject: Lower Duwamish Waterway (LDW) November 13 Tribes, Trustees, and Community Meeting Follow-

up

**Attachments:** 2019-FINAL-VERSION-presentation-for-Nov-13-2019-Stakeholders-Meeting-v.11-25-19.pdf;

Ecology\_Sites\_Updates\_Nov-11-2019-003.pdf; KC demand letter Q2-Q4-2017 and all 2018 FINAL\_

20191105.pdf

## Lower Duwamish Waterway (LDW) Cleanup Tribes, Trustees, and Community Meeting

Lower Duwamish Waterway Tribes, Trustees, and Community (TTC) members,

At the **November 13** Lower Duwamish Waterway (LDW) **Tribes, Trustees, and Community (TTC) meeting** participants discussed technical updates regarding the design of the upper reach of the LDW, the Institutional Controls (IC) Program, source control, the US Environmental Protection Agency and WA Department of Ecology's community involvement efforts, and DRCC/TAG activities.

Please see attached for the presentation slides shared during the morning Stakeholders meeting and discussed at the TTC meeting. A meeting summary of the TTC meeting is currently being developed.

Additionally, at the bottom of this email, I have included a message from Bo Li (Ecology) regarding two water quality questions from the TTC meeting.

Please do not hesitate to let me know if you have any questions.

Thank you

Kizz

Message from Bo Li:

Hi TTC members,

This information is a follow up to your questions about 2 different water quality topics at the recent TTC meeting.

You asked about the recent Combined Sewer overflow (CSO)-related penalty to King County. The penalty letter is attached for your reference. Two of the listed violations are related to discharges to the Duwamish River. Neither are cause for concern related to the progress of Lower Duwamish Waterway source control.

1. The MLK/Henderson CSO treatment plant discharges through the Norfolk Outfall (located on the east bank of the LDW north of the S 102nd St. bridge). King County's water quality permit requires the treatment plant to remove over 50% of Total Suspended Solids (TSS) on an annual average basis. In 2017, its annual average removal efficiency for TSS was 45.5%.

2. The "exacerbated" CSO from the Hanford outfall (located on the east bank of the East Waterway at the north end of Terminal 25) discharged into the East Waterway. An "exacerbated" CSO is a CSO discharge that lasted longer than it should have because of mechanical or electrical problems with the equipment that regulates the overflow. In this case, a storm that started on 12/29/2017 resulted in 57.3 million gallons of CSO discharge from the outfall between the morning of the 29th and the evening of the 30th. This discharge complied with the conditions in King County's permit. After the effects of the storm passed, a failure in the regulator gate for the outfall allowed an additional 5.5 million gallons of combined sewage that should have been conveyed to West Point for treatment to discharge untreated between the evening of the 30th and the afternoon of January 1, 2018. This incident is more of operational concern rather than a water quality concern. It means their control system was not working properly, which is a permit violation.

Your interest and questions about CSOs suggest that this is a topic that would be worth providing a thorough status update to you and other LDW stakeholders. Ecology will plan to do this at the next LDW stakeholder meeting. In the meantime, if you have specific questions about the CSO permit, you can contact Shawn McKone at (425)649-7037 or email him at <a href="mailto:shawn.mckone@ecy.wa.gov">shawn.mckone@ecy.wa.gov</a>. He is our permit manager for CSO permit and our regional CSO expert.

You also asked about a September sewage spill to the LDW's Slip 6 near the Museum of Flight. The City of Seattle properly reported the incident under their Municipal Stormwater Permit and described the following:

• On 9/19/2019, Seattle Public Utilities received a report of sewage in a stormwater ditch near the King County Airport. Their Spill Response team investigated immediately. Their response included pump & bypass, and containment, and taking a video of the sewer line to find the cause. They found that a piece of plywood was lodged in a sewer maintenance hole, causing the blockage. Once the plywood was removed, the spill of sewage into the ditch stopped. Seattle cleaned the ditch. They estimate that the total volume of sewage that entered the ditch at 320,000 gallons.

**Bo Li**, Ph.D., P.E., LEED AP Environmental Engineer WA Department of Ecology NWRO (425)649-7284



Kizz Prusia (he/him)
Project Associate II and Marketing Assistant
Triangle Associates, Inc.
811 1st Ave, Ste. 255
Seattle, WA 98104
(206) 583-0655 ext 138
www.triangleassociates.com
A certified WBE Firm founded in 1979

## Lower Duwamish Waterway Uplands Sites Update

#### November 13, 2019



## **Upland Sites in RI Phase**

- Crowley Marine Services
- Douglas Management Dock
- Duwamish Marine Center
- Industrial Container Services
- North Boeing Field /Georgetown Steam Plant
- Terminal 115 N



#### Upland Sites in RI Phase (Cont.)

- Snopac Property
- Boeing Developmental Center
- South Park Marina (RI work plan)
- Whitehead Tyee (RI work plan)
- Jorgensen Forge Corp (RI work plan)



### Upland Sites in FS Phase

- Duwamish Shipyard
- Boeing Field Chevron
- Boeing Isaacson/Thompson
- Glacier Northwest Inc



#### **Upland Sites: New Agreed Orders**

 Emerald Gateway – Currently in public comment (Oct 28 to Nov 20) for agreed order and interim action work plan.

 Terminal 115 Main – Negotiations for agreed order continue.

Precision Engineering – Negotiations for agreed order started.



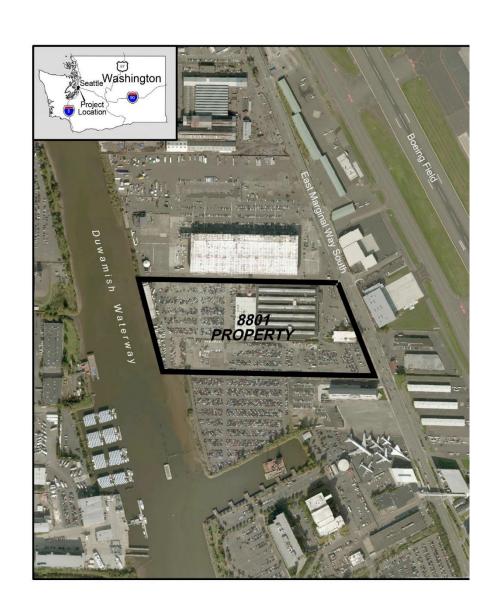
## Other Upland Sites Updates

- General Electric Aviation
  - 5 Year review in process
- East of 4<sup>th</sup> cleanup ongoing
- West of 4<sup>th</sup> vapor intrusion study



## Other Upland Sites Updates

- 8801 E Marginal Way
  - Public comment completed.
  - 24 comments received, Ecology working through responses.
  - Final work plan pending.



#### Other Source Control News

#### Ecology

- 2017 Status report is available
- Working on 2018 status report

#### King County

Updated their Source Control Plan



#### Other Source Control News (cont)

- Port of Seattle
  - Environmental Compliance Assessment Program (ECAP) - 5 locations
  - Stormwater Pollution Prevention inspections 5 locations
- City of Seattle
  - Inspected 143 businesses
  - Collected 124 source tracing samples
  - Jetted and cleaned more than 15,000 feet of pipe in the City's drainage system to remove contaminated sediment that could otherwise reach the LDW



#### Contacts

#### **Tamara Cardona**

Toxics Cleanup Program 425-649-7058

#### **Rick Thomas**

Source Control Lead 425-649-7208 richard.thomas@ecy.wa.gov







Marc Isaacson, Director King County Wastewater Treatment Division King Street Center, KSC-NR-0500 201 S. Jackson Street Seattle, WA 98104

Re: United States of America and the State of Washington v. King County Consent Decree (Consent Decree), Civil Action No. 2:13-cv-00677-JCC Demand for Payment of Stipulated Penalties

#### Dear Marc Isaacson:

On July 3, 2013, the EPA, the Washington State Department of Ecology, and King County (County) entered into the above-mentioned Consent Decree (modified October 25, 2016) to resolve alleged violations of the Clean Water Act, including violations of your National Pollutant Elimination System Permit (NPDES Permit).

Section X of the Consent Decree requires the County to pay stipulated penalties for certain violations of the Consent Decree. Effluent limit violations of certain County combined sewer outfalls, as defined by Paragraph 58 of the Consent Decree, give rise to the County's obligation to pay stipulated penalties as follows:

- \$10,000 per annum for failing to meet the Total Suspended Solids removal efficiency;
- \$10,000 per annum for failing to meet the Settleable Solids annual average;
- \$2,000 per event for failing to meet the Settleable Solids maximum per event;
- \$2,000 per month for failing to meet the Fecal Coliform monthly geometric mean (Fecal limit);
- \$2,000 for failing to meet the Total Residual Chlorine daily maximum (TRC limit).

Furthermore, Paragraph 59 of the Consent Decree gives rise to the County's obligation to pay a stipulated penalty of \$3,000 per day (1<sup>st</sup> to 14<sup>th</sup> Day) for each failure to comply with Compliance Program Requirements, applied here to each Disinfection Failure. Paragraph 62 of the Consent Decree also gives rise to the County's obligation to pay a stipulated penalty of \$2,500 per day for each Sewer Overflow.

During the time frame of April 1, 2017 and December 31, 2018, there was a total of 20 violations for which EPA and Ecology have made a decision to issue stipulated penalties.

As shown in the tables below, the County had 10 effluent violations including Total Residual Chlorine (TRC), and Fecal Coliform at the Elliot West CSO Treatment Plant and the Carkeek CSO Treatment Plant. Each occasion is a separate violation subject to a stipulated penalty of \$2,000. Additional limit violations included two violations of the annual Settleable Solids limit at the Elliot West treatment plant and six violations of the Total Suspended Solids percent removal at the Elliot West, Alki, Carkeek and MLK Henderson CSO Treatment Plants. Each of these eight violations is subject to a stipulated penalty of \$10,000. The County also violated the sewer overflow prohibition on one occasion, subject to a stipulated penalty of \$2,500.

In addition to the above violations, the County reported one disinfection failure at the Elliot West facility on April 14, 2018. Disinfection failures at CSO treatment facilities violate special condition S5 (Operation and Maintenance) of the County's NPDES Permit. The County's failure to comply with the terms and conditions of its NPDES Permit, as they relate to the combined sewer system, violate paragraph 19 of the Consent Decree and is subject to a stipulated penalty of \$3,000.

The following tables provide an itemized list of each violation.

#### **Limit Violations**

Date of Violation	Location of Incident	Parameter/Reported Value	Limit	Stipulated Penalty Value
4/11/2017	Elliott West CSO 27	TRC 3412 µg/l	109 μg/l Max Daily	\$2,000
10/21/2017	Elliott West CSO 27	TRC 658 µg/l	109 μg/l Max Daily	\$2,000
11/3/2017	Elliott West CSO 27	Elliott West CSO 27 TRC 239 μg/l 109 μg/l Max Daily		\$2,000
11/4/2017	Elliott West CSO 27 TRC 710 μg/l 109 μg/l Max Daily		\$2,000	
11/5/2017	Elliott West CSO 27	lliott West CSO 27 TRC 243 µg/l 109 µg/l Max Daily		\$2,000
11/21/2017	Elliott West CSO 27	Elliott West CSO 27 TRC 225 μg/l 109 μg/l Max Da		\$2,000
December 2017	Elliott West CSO 27	Fecal Coliform 619 cfu/100 mL	400 cfu/100 mL Monthly Geo Mean	\$2,000
December 2017	Carkeek CSO 46	arkeek CSO 46 Fecal Coliform 1871 cfu/100 mL 400 cfu/100 mL Ge		\$2,000
2017	Elliott West CSO 27	Settleable Solids 4.04 mL/L/hr	0.3 mL/L/hr	\$10,000
2017	Elliott West CSO 27	Total Suspended Solids Removal Efficiency 21.4%	% Annual Average >50%	\$10,000
2017	Alki CSO 51	Total Suspended Solids Removal Efficiency 24.5%	% Annual Average >50%	\$10,000
2017	Carkeek CSO 46	Total Suspended Solids Removal Efficiency 28.2%	% Annual Average >50%	\$10,000
2017	MLK/Henderson 44	Total Suspended Solids Removal Efficiency 45.5%	% Annual Average >50%	\$10,000
11/26 - 11/27 2018	Elliott West CSO 27	TRC 208 μg/l; TRC 733 μg/l	109 μg/l Max Daily	\$2,000
December 2018	Elliott West CSO 27	Fecal Coliform 49,000 cfu/100 mL	400 cfu/100 mL Monthly Geo Mean	\$2,000
2018	Elliott West CSO 27	Settleable Solids 2.60 mL/L/hr	0.3 mL/L/hr	\$10,000
2018	Elliott West CSO 27	Total Suspended Solids Removal Efficiency 49.4%	% Annual Average >50%	\$10,000
2018	Alki CSO 51	Total Suspended Solids Removal Efficiency 39.5%	% Annual Average >50%	\$10,000

#### Sewer overflows

Date of Incident	Location of Incident	Description	Stipulated Penalty Value
12/30/2017-	Hanford #2 Regulator	~5.5 million gallons to the East Waterway CSO	\$ 2,500
1/1/2018	Outfall 032	exacerbated	

#### **Disinfection failures**

Date of Incident	Location of Incident	Description	Stipulated Penalty Value
4/14/2018	Elliott West CSO 27	~3.93 million gallons of non-disinfected flow to Puget Sound over a period of nearly 3 hours.	\$3,000

Total Stipulated Penalty: \$105,500

Paragraph 65 of the Consent Decree allows the United States, the State, or both to seek stipulated penalties by sending a written demand to the County; and further provides that when a joint demand for stipulated penalties is made that the County shall pay 50% of the demanded amount to the United States and 50% to the State. As a result of the 18 identified limit violations, one identified disinfection failure and one overflow pursuant to this letter, EPA and Ecology are jointly issuing a demand for payment of \$105,500. Accordingly, the County is required to pay \$52,750 to EPA, and \$52,750 to Ecology.

Payment is due within thirty (30) days of the date this written demand is received by the County, see Paragraph 65 of the Consent Decree, and payment shall be made in accordance with Paragraphs 52 and 53 of the Consent Decree, see Paragraph 67 of the Consent Decree. Please note that the payment to the United States is by Electronic Fund Transfer, and notice of such transfer as required by Paragraph 52 shall be sent to the following address:

EPA Cincinnati Finance Office 26 Martin Luther King Drive Cincinnati, OH 45268

The notice that is sent to the above address shall include a copy of the electronic fund transfer authorization and a transmittal letter that states the payment is made for a civil penalty owed pursuant to the Consent Decree and shall reference the civil action number for this matter and the DOJ case number 90-5-1-1-10030. See Paragraph 52 of the Consent Decree.

Consistent with Paragraph 53, payment to the State may be by check payable to "Department of Ecology" and mailed to:

Department of Ecology Cashiering Unit P.O. Box 47611 Olympia, WA 98504-7611

Payment to the State must be accompanied by a transmittal letter that states the payment is for a civil penalty and owed pursuant to the Consent Decree and shall reference the civil action number for this matter. See Paragraph 54 of the Consent Decree.

In addition, the notices provided to the United States and State must also satisfy the notice requirement of Section XIII of the Consent Decree (Notices).

For written notification or communication under Section XIII and Paragraph 85 of the Consent Decree, please use the following individuals:

#### For DOJ:

Chief, Environmental Enforcement Section Environment & Natural Resources Division

U.S. Department of Justice

P.O. Box 7611

Washington, D.C. 20044-7611

202.514.5271 Ph: 202.514.0097 Fax:

For EPA:

Ted Yackulic **Assistant Regional Counsel** 

U.S. EPA, Region 10 1200 6<sup>th</sup> Avenue, Suite 900 (ORC-158)

Seattle, WA 98101 vackulic.ted@epa.gov

Ph: 206.553.1218 206.553.0163 Fax:

Kathryn C. Macdonald, Attorney U.S. Department of Justice

P.O. Box 7611

Washington, D.C. 20044-7611 kathryn.macdonald@usdoj.gov

Ph: 202.353.7397 202.514.0097 Fax:

Rob Grandinetti

NPDES Compliance Officer

U.S. EPA, Region 10

1200 6<sup>th</sup> Avenue, Suite 900 (OCE-133)

Seattle, WA 98101 grandinetti.robert@epa.gov

Ph: 509.376.3748

509.376.2396 Fax:

Marc Isaacson, Director, King County Wastewater Treatment Division Page 4 of 4

For Ecology:
Rachel McCrea
Water Quality Section Manager
Washington State Department of Ecology
Northwest Regional Office
3190 - 160<sup>th</sup> Avenue SE
Bellevue, WA 98008-5452
rachel.mccrea@ecy.wa.gov
Ph: 425.649,7033

For the State:
Ronald L. Lavigne
Senior Counsel
Attorney General of Washington
Ecology Division
P.O. Box 40117
Olympia, WA 98504
ronald.lavigne@atg.wa.gov
Ph: 360.586.6751

If the County believes the amount assessed is incorrect, the County may invoke the dispute resolution procedures under Section XII of the Consent Decree. As part of your statement of matters in dispute, please include the effluent limit violations or overflows the County wishes to dispute, and the County's reasons for believing the assessed amount is incorrect.

In accordance with Section X, Paragraph 65, all penalties which are not in dispute are due and payable to the United States and Ecology within thirty (30) days of receipt of this letter.

Should you have any questions regarding this letter, you may reach Edward Kowalski at (206) 553-6695, Rachel McCrea at (425) 649-7033, or have your counsel contact Ted Yackulic, Assistant Regional Counsel, at (206) 553-1218, or Ronald Lavigne at (360) 586-6751.

Date: 10/30/2019

Date: W/4/19

Sincerely,

Edward J. Kowalski, Director

Enforcement and Compliance Assurance Divison

**Environmental Protection Agency** 

Heather R. Bartlett

Water Quality Program Manager Washington Department of Ecology

Certified Mail No.: 9171 9690 0935 0204 6822 45

cc: Mr. Jeff Lafer, King County Wastewater Treatment Division

Ms. Laura Fricke, Ecology Northwest Regional Office

Ms. Rachel McCrea, Ecology Northwest Regional Office

Mr. Shawn McKone, Ecology Northwest Regional Office

Mr. Ronald Lavigne, Attorney General of Washington Ecology Division

Ms. Kathryn Macdonald, U.S. Department of Justice



## Stakeholders Meeting

## **Community Involvement Updates**



#### **EPA's Activities**

## August 17 Duwamish River Festival & Boat Tour



#### September 5 Port of Seattle Boat Tour



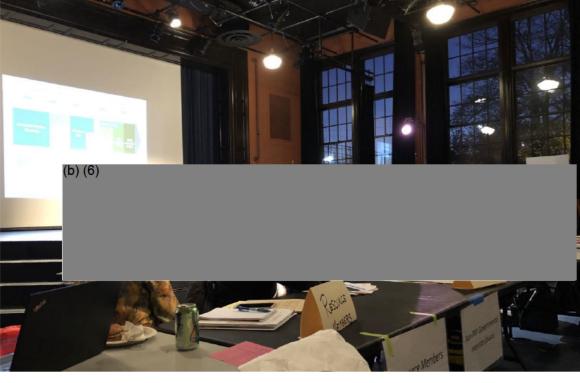


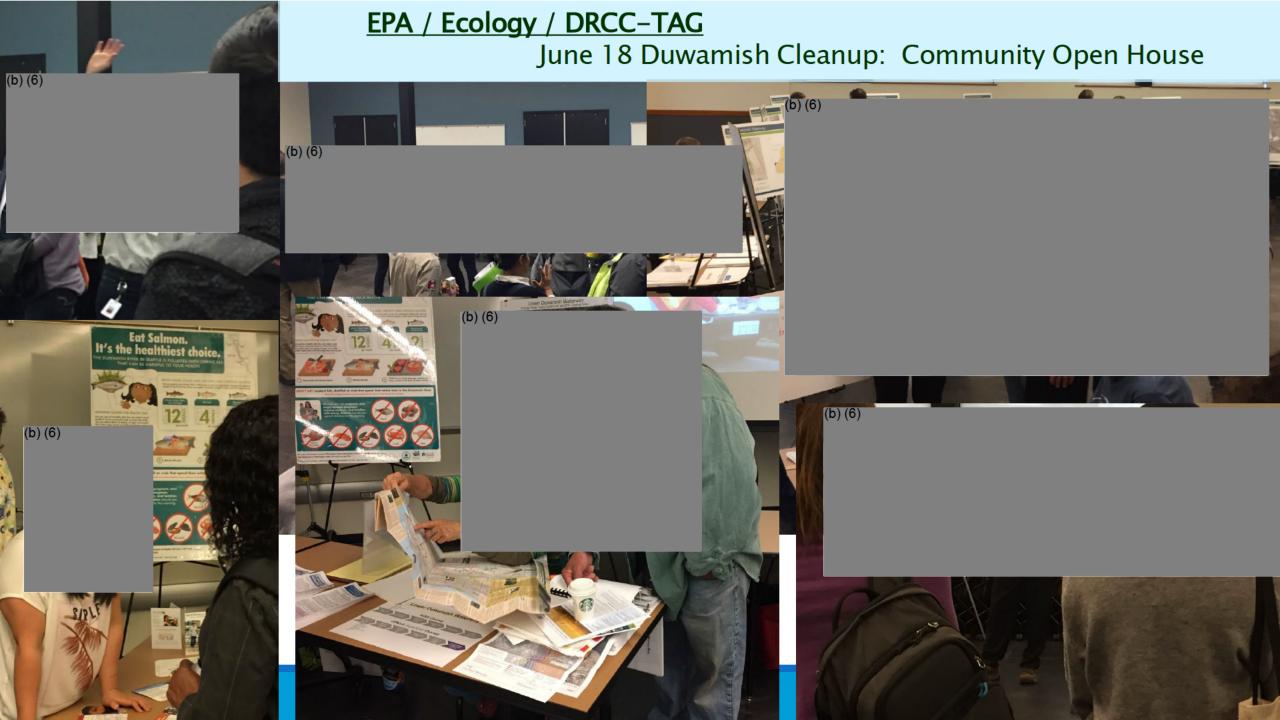
## Duwamish Roundtable

May 29



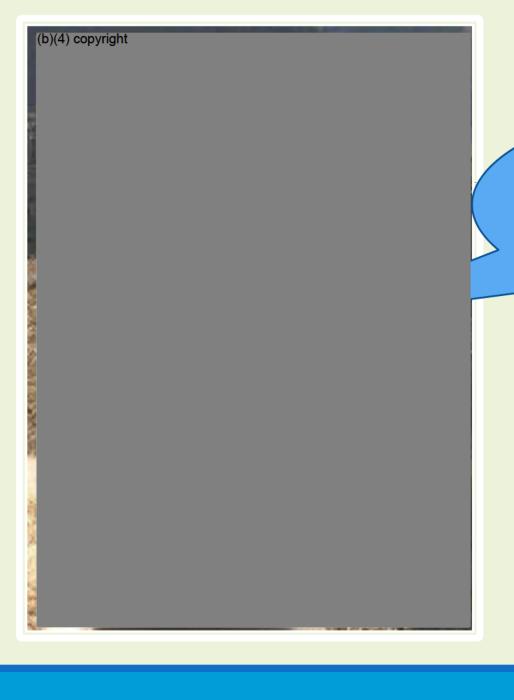
October 30





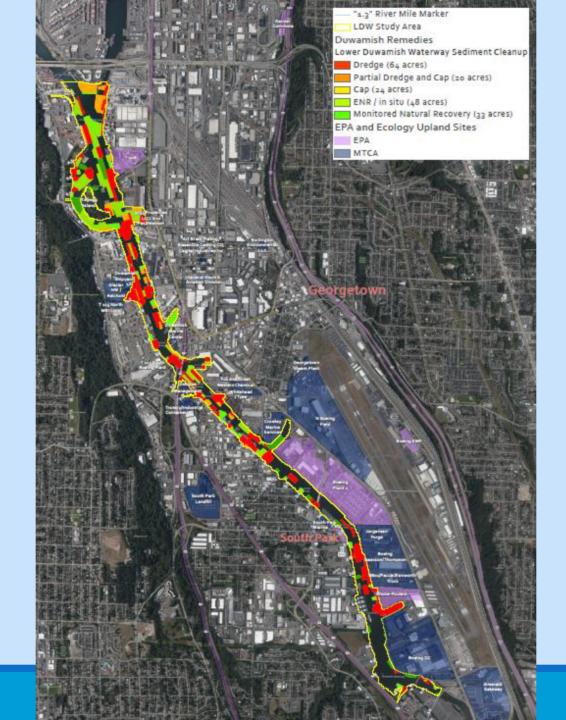
#### **Ecology's Events and Activities**

\* Public Comment Periods: Community Meetings

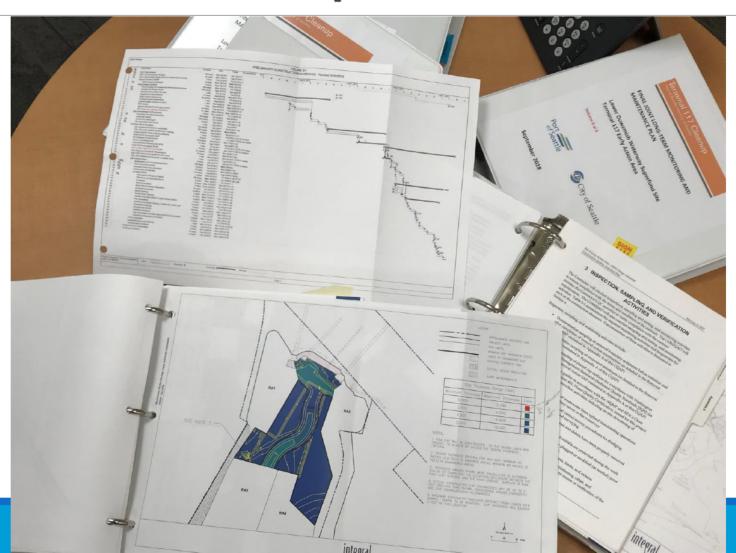


## Any questions?

# EPA's Superfund Cleanup of the LDW



## Pre-Design Studies (AOC3) Data Evaluation Report



## Pre-Design Studies (AOC3) - Data Evaluation Report

- Sampling for baseline and source control
- Fish, crabs, clams, as well as sediment and surface water
- Draft Final expected in December 2019
- Under AOC4, LDWG will repeat fish, crab, and passive surface water sampling in 2023



#### LOWER DUWAMISH WATERWAY DATA EVALUATION REPORT (TASK 6)

#### DRAFT

Prepared for

Lower Duwamish Waterway Group

For submittal to

US Environmental Protection Agency

December 17, 2018

Prepared by: Wind ward

200 West Mercer Street, Suite 401 • Seattle, Washington • 98119

#### Upper Reach Remedial Design (AOC4)

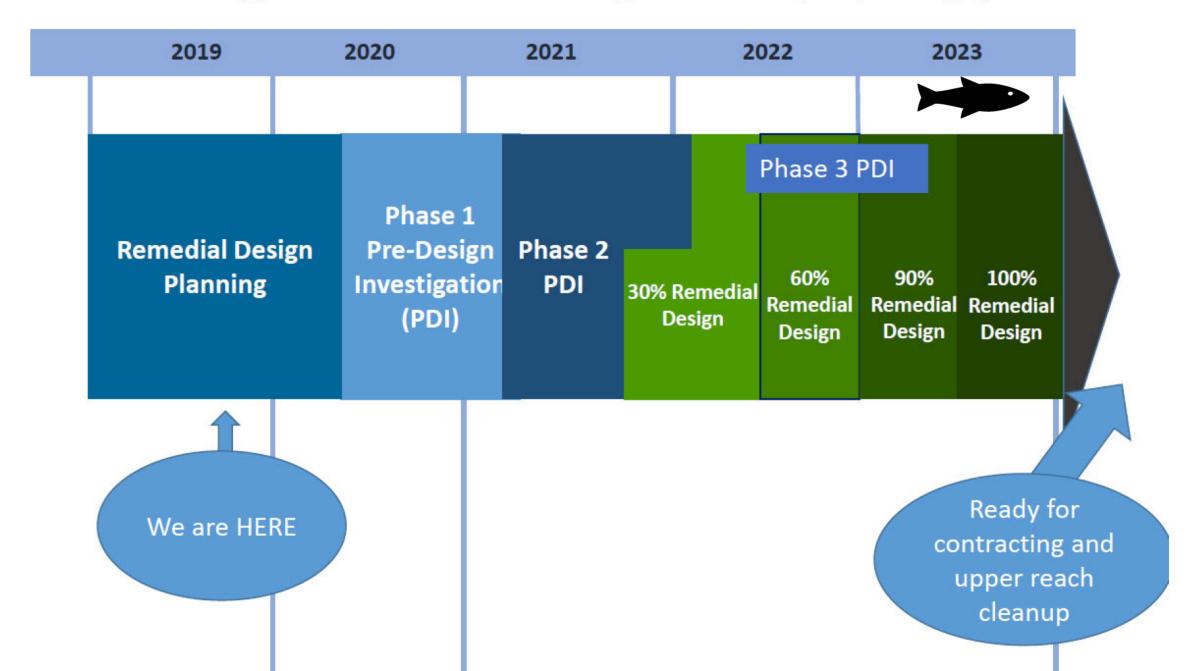
RD work plan (Anchor)

Describes RD process, phasing, schedule, deliverables

- June draft reviewed
- Expect final by early December 2019
- LDWG.org web page will have final posted

Includes pre-design investigation (PDI) work plan (Windward)

#### Upper Reach Remedial Design Schedule (may change)



#### PHASE I Pre-Design Investigation

Phase I field work in early 2020

#### QAPP due November 26

- Details of field sampling and analytical methods
- Proposed locations of sampling, including samples to archive
- Analysis of tiered sampled depends on primary sample results
- Phase 2 QAPP to fill data gaps following review of Phase I results

#### PHASE I Pre-Design Investigation

Follows ROD logic: location (subtidal/intertidal/channel), recovery categories, depth intervals and RALs

Summarizes available data relative to ROD action levels

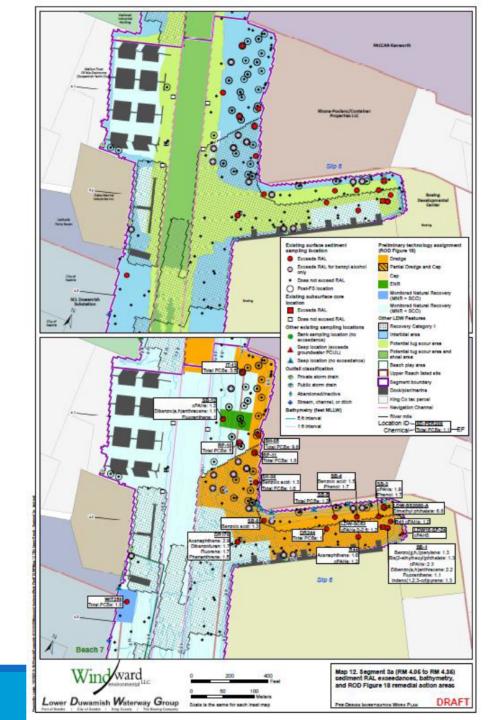
Approach to Phase I sampling:

- Revisit places with few or low RAL exceedances
- Bound areas of known contamination
- Ensure coverage of areas with no data

Proposes archiving samples for tiered analysis.

Provides a hypothetical example of tiering

Considers biological testing of some samples



#### **Example from PDI WP**

Patchy sample distribution – RI, Early Action Areas, other data sources

Corps will dredge turning basin and some channel

- no more data needed there

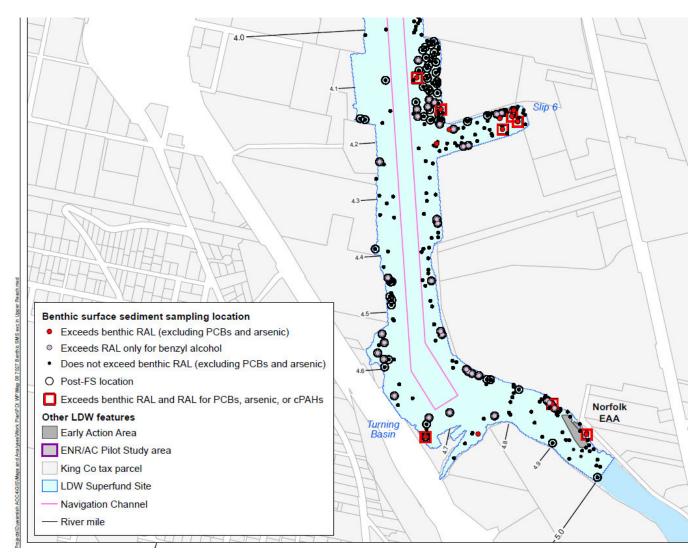
Black dots/circles – below RAL (action level)

Red and lavender - above RAL

Lavender: exceeds only for benzyl alcohol

Recent data suggest this RAL may not predict toxicity to benthic organisms.

If benzyl alcohol alone exceeds the RAL, may "pass" benthic toxicity test. QAPP will propose tests to determine if active cleanup is required.

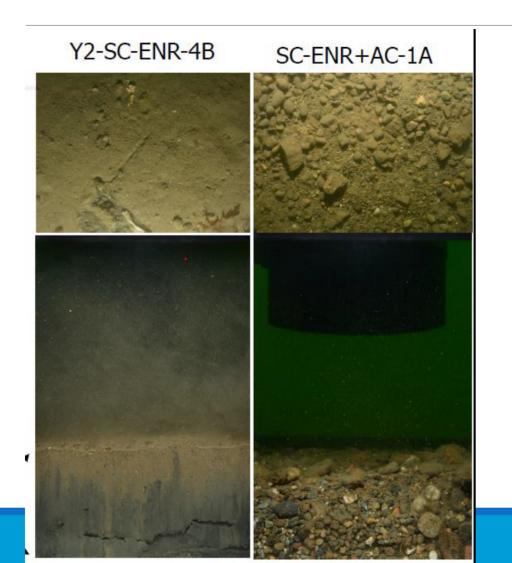


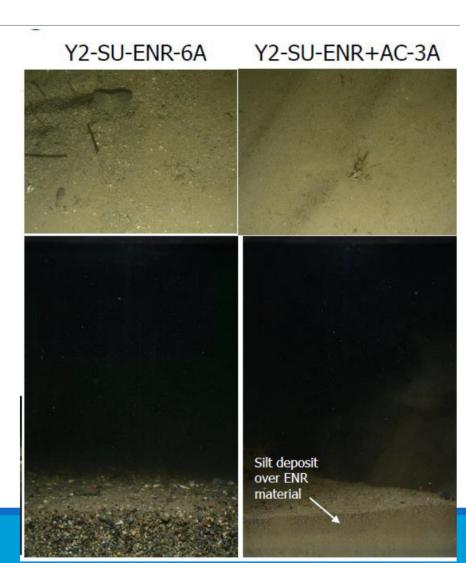
Excerpt from Map 8 of PDI WP

## Carbon Amendment Pilot Study (AOC2)

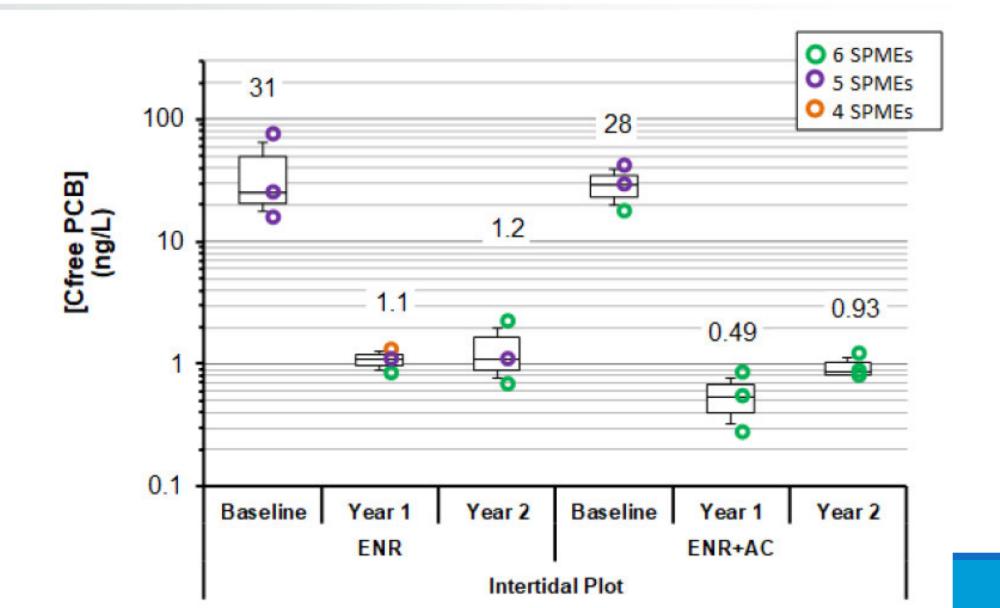
DQO	Phase	Completed
DQO-1: Verify the Placement of the ENR and ENR+AC Materials	Y0	✓
	Y1	✓
DQO-2: Evaluate the Stability of ENR and ENR+AC Materials	Y2	✓
and LIVICITAC Materials	Y3	Y3
DQO-3: Assess Changes in	Y1	✓
Bioavailability in ENR+AC Compared to	Y2	✓
ENR Alone	Y3	Y3
DQO-4: Assess the Potential Impacts of AC on Benthic Communities	Y3	Y3

## <u>SPI Cameras - Plan and Profile Views</u> Scour Plot and Subtidal Plot





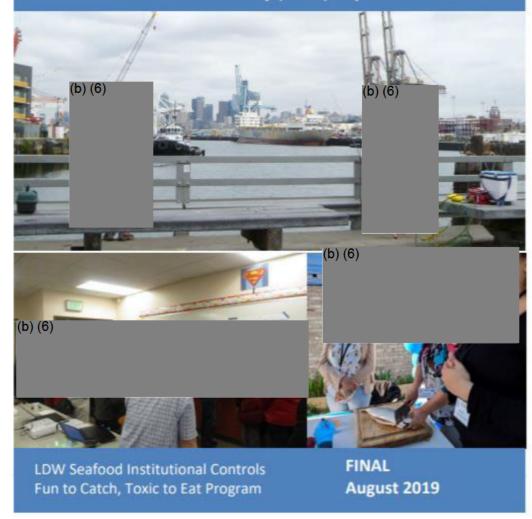
## C<sub>free</sub> for Intertidal



# Fish Consumption Institutional Controls



US EPA's Institutional Control Implementation and Assurance Plan (ICIAP) for Seafood Consumption at the Lower Duwamish Waterway (LDW) Superfund Site



## https://www.kingcounty.gov/depts/health/environmental-health/healthy-communities/duwamish-fishing.aspx



## Public Health — Seattle & King County

Environmental Health Services

Community services and resources

Fishing for safe seafood to eat

Health advice for moms and children

Duwamish River Superfund site

Community outreach

About the program

ភាសាខ្មែរ | Khmer

Español | Spanish

Tiếng việt | Vietnamese

Health Impact Assessment (HIA)

Noise guidelines

School plan review

Water recreation permits

Home >>> Public Health — Seattle & King County >>> Environmental Health Services >>> Community services and resources >>> Fishing for safe seafood to eat

## Fishing for safe seafood to eat

The only Duwamish seafood safe to eat is salmon

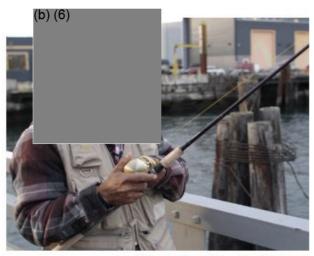


Photo by: Alex Montalvo of Revel Riter Media

In the Duwamish River, the seafood that spend their entire lives in the river (perch, sole, flounder, crab, mussels and clams) are unsafe to eat. They have high levels of toxic chemicals (such as PCBs) that you cannot see.

Toxic chemicals can harm unborn babies, infants and young children the most – impacting their memory, attention, motor skills and language development.

#### Protect your health:

Eat salmon!

Health advice for moms and children

**Duwamish River Superfund site** 

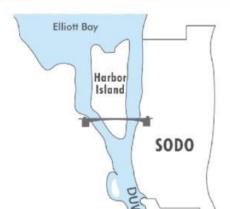
Community outreach

About the program

ភាសាខ្មែរ (Khmer)

Español (Spanish)

Tiếng việt (Vietnamese)





#### Policy & Partnership Recommendations that address certain barriers can enhance the positive impacts

Positive Program Impacts after implementation of IC strategies

#### WDFW Fishing License & Rules

Improve WDFW's fishing license purchasing online system and multilingual education on fishing rules to support fishing for salmon only in the Duwamish River or at alternative fishing sites.

Short-Term Impacts

By start of cleanup, there

among Duwamish fishers

about the Duwamish

seafood advisory.

will be improved knowledge

,....,

Transportation Support to Alternative Fishing Sites Provide transportation support for Duwamish fishers to get to alternative fishing sites on a regular basis.

#### Targeted IC Strategies\* focus on target audiences

#### **Duwamish Fishing Club**

Partner with WDFW and bait and tackle stores to create a club of Duwamish fishers (with a fishing competition) to provide training on how to catch salmon on the Duwamish River (phase 1) and educational visits to alternative fishing sites to increase their knowledge about other safe seafood to catch in Seattle and South King County (phase 2).



#### Schools & Youth Programs

Provide a grant to a school or youth program to develop a strategy that increases knowledge about the Duwamish seafood advisory among youth/students from priority fishing communities in the Seattle and South KC.



#### **Community Centers & Faith Organizations**

Provide a grant to a community center or faith organization that serves a priority ethnic/language fishing community (not already represented on our CHA teams) to develop a strategy that increases their knowledge about the Duwamish seafood advisory.



Community Health

Advocates (CHAs)

The CHAs are the foundation

program. As a voice for their

affected fishing communities,

they promote safe seafood

communities, advocate for

collaborate with Public Health

on programmatic decisions

implementing the strategies

\*Strategies will be adapted

based on evaluation results,

and/or changes to the DOH

saturation of target audiences,

seafood consumption advisory.

consumption in their

culturally appropriate

and designing and

and tools.

recommendations, and

of this community-based

#### **Moms Classes & Salmon Cooking Demos**

Partner with community health clinics and community kitchens to educate moms and caregivers of young children who receive local seafood catch about the health reasons for accepting only salmon from the Duwamish River, and demonstrate how to prepare culturally appropriate salmon dishes.

#### Short-Term Impact

By start of cleanup, there will be improved knowledge, skills, selfefficacy, and positive social norms and attitudes about choosing only salmon from the Duwamish River or other healthy seafood choices among moms (in particular, pregnant/nursing women) and caregivers of young children who receive local seafood catch.

### Medium-Term Impacts

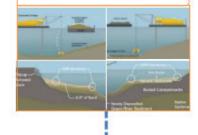
During active cleanup, the improved knowledge, skills, self-efficacy, and positive social norms and attitudes provided by the IC strategies will:

- Support Duwamish fishers to fish only for salmon from the Duwamish River and/or fish for safer seafood at alternative sites in Seattle and South King County.
- Increase the likelihood of Duwamish fishers to catch only salmon on the Duwamish River or go to alternative fishing sites (compared to the shortterm impact results).
- Support healthy seafood choices by moms (including pregnant/nursing women) and caregivers of young children receiving local seafood catch from the Duwamish River.
- Increase the likelihood of the moms and caregivers in this target group to accept, prepare, and eat only salmon from the Duwamish River.

#### Long-Term Impact

Achieve the program goal of promoting culturally appropriate healthy actions that protect the health and well-being of fishing communities. especially pregnant women, nursing moms and young children, from the contaminated resident seafood in the LDW Superfund Site before. during, and after the cleanup.

#### Cleanup Contamination



#### Community Steering Committee's Long-Term **Environmental Justice Vision** (2018)

Environmental Justice is achieved when no communities based on race, ethnicity, language, or socioeconomic status have a disproportionate burden of the health risks associated with the contaminated seafood from the Duwamish River.

We can all eat more fish safely from the river. We can enjoy the river. There is now a positive public perception about the river and its resident seafood.

Our community is empowered, and we have a strong voice to advocate for ourselves. The history of our community work for this river is not forgotten.

#### Other Local Efforts





Other important efforts by communities, local governments, and organizations.

Updated 8/14/19\_Public Health

#### Policy & Partnership Recommendations

that address certain barriers can enhance the positive impacts

Supermarket Seafood Labeling Label supermarket seafood that are safe for pregnant/nursing moms and young children.

Healthy Fish Options at Food Banks Offer healthy fish options at food banks in the target geographic area.

Supermarket Discounts for Healthy Seafood Provide coupons for healthy seafood at local supermarkets in the target geographic area.

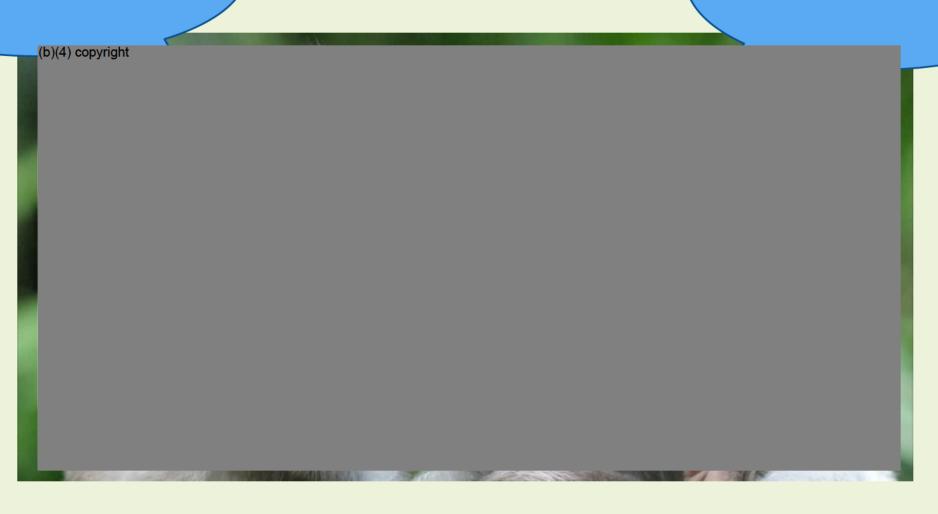
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"Healthy
Fishing in the
Duwamish:
Let's Catch
Salmon"



## **Questions?**

## **Answers!**



## Source Control Updates



## **EPA's Upland Sites**: Boeing Plant 2

N Boeing

Field

Crowley

Marine





# EPA's Upland Sites: T 108





# **EPA's Upland Sites:**Former Rhone Poulenc





## **EPA's Upland Sites:**

## **Rainier Commons**



## EPA's Early Action Areas



## **EPA's Early Action Areas:**

Earle M. Jorgensen





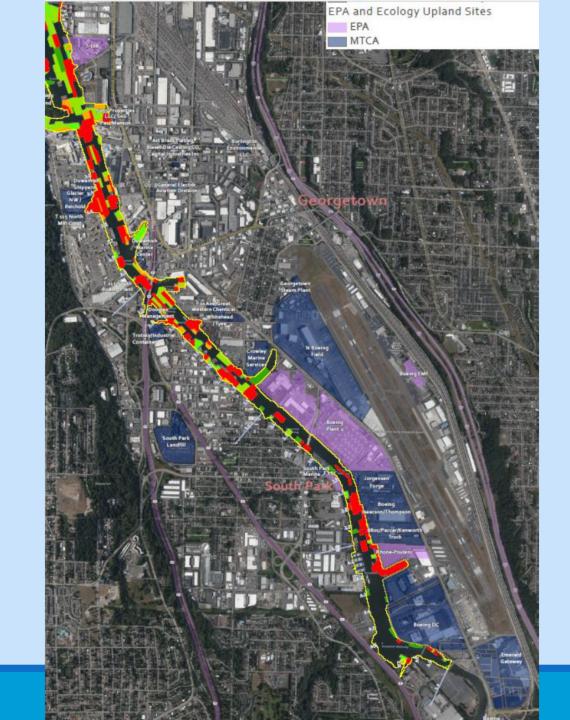
## **EPA's Early Action Areas:**

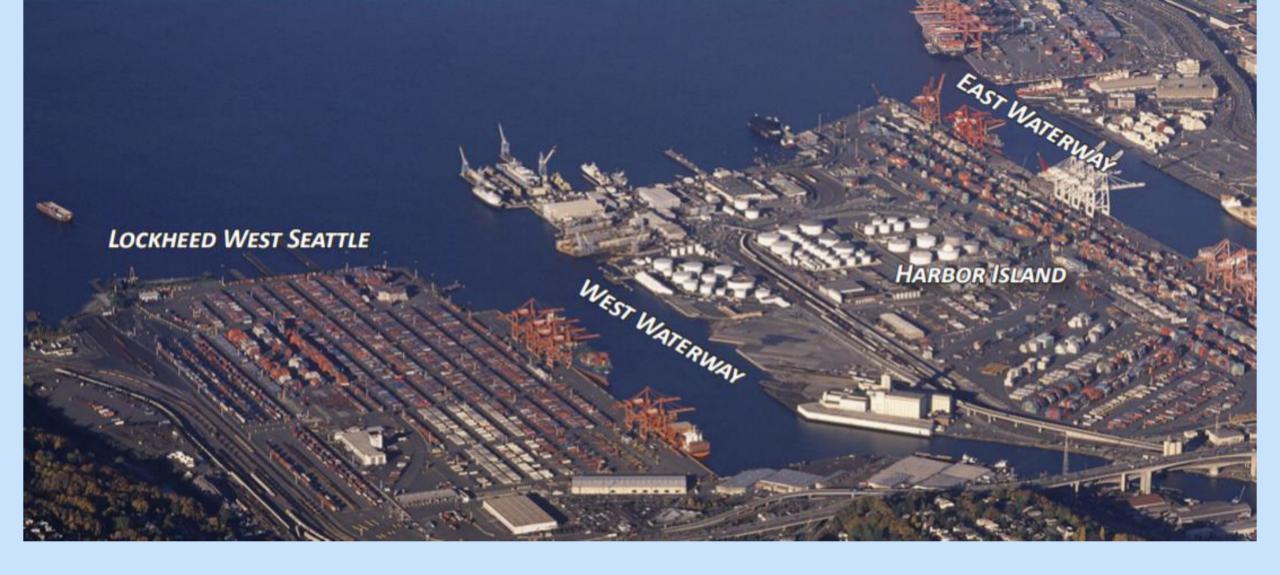
## T117, Boeing Plant 2 (in-water work) Slip 4

Data from recent monitoring of the completed Early Actions

- T117 data first sediment monitoring since construction 2019 (Year 4)
- Boeing Plant 2 data Year 3 (2018) monitoring. Next is Year 5 (2020)
- Slip 4 data -Year 7 (2019) report due late November. Next is Year 10 (2022)
- Norfolk and Duwamish Diagonal CSOs monitoring no longer required

# Ecology's Upland Sites Updates

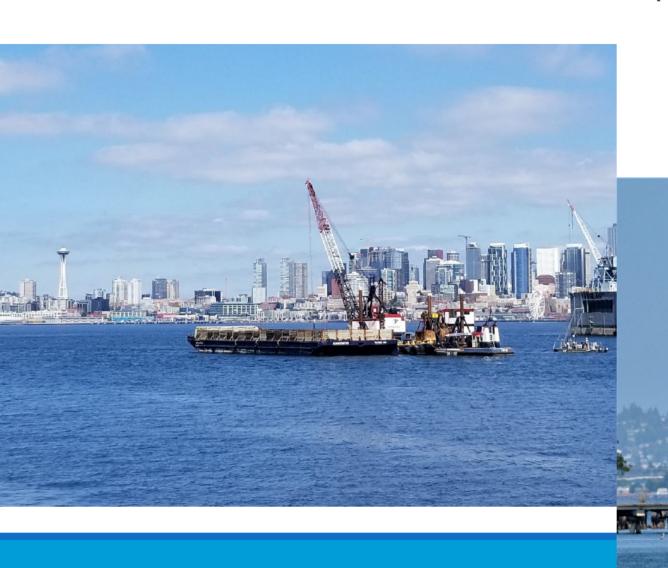


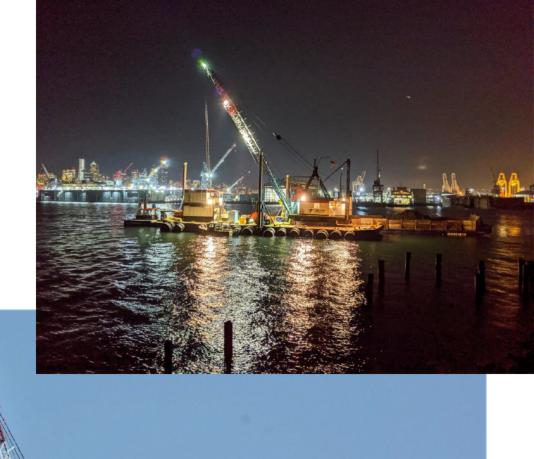


EPA's Sites Adjacent to the LDW

## **Lockheed West Seattle:**

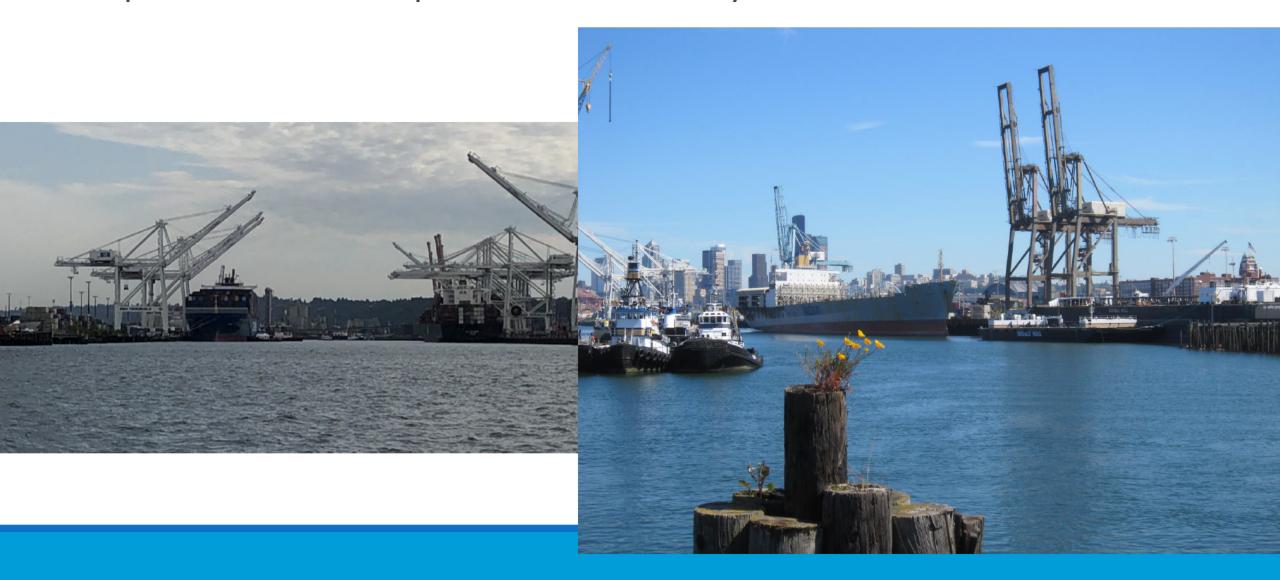
Second season of Remedial Action complete





## **East Waterway**:

Proposed Plan - anticipated release in early 2020

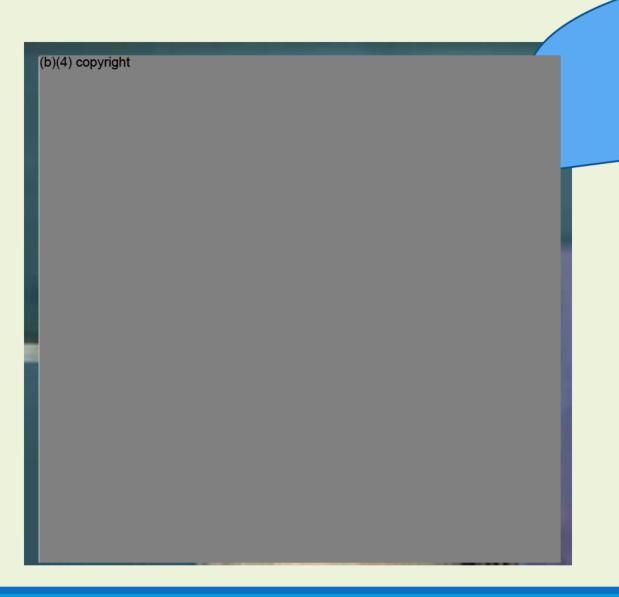


## **Pacific Sound Resources:**

Five Year Review completed







## Any questions?

## DRCC/TAG: Cleanup-Related Activities

(b)(4) copyright Any questions?

## Next Stakeholders Meeting:

Wed., June 10, 2020

